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### The Therapeutic Alliance in Rehabilitation

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# CHAPTER

# 2

## Working Alliance Inventory-Short Form Revised Appraisal; Clinimetrics

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## SUMMARY

The 36-item Working Alliance Inventory, based on Bordin's theory, was developed in 1989 to measure the strength of the therapeutic alliance (Horvath & Greenberg, 1989). Later, a 12-item form, the Working Alliance Inventory-Short Form Revised (WAI-SR) of the WAI was developed (Hatcher & Gillaspy, 2006). The WAI-SR has similar clinimetric properties as the 36-item version (Hatcher & Gillaspy, 2006). The short form requires less time to complete, and is therefore less burdensome for patients and more appropriate for repeated measurements over time in clinical practice and research. The WAI-SR measures three domains of the therapeutic alliance: (a) agreement between patient and therapist on the goals of the treatment (Goal); (b) agreement between patient and therapist about the tasks to achieve these goals (Task); and (c) the quality of the bond between the patient and therapist (Bond) (Bordin, 1979). A key aspect of the therapeutic alliance is that it requires active negotiation and participation between patient and therapist.

The WAI-SR is a patient-rated questionnaire. Patients rate items on a 5-point Likert scale anchored at each end with 'rarely or never' (1) and 'always' (5). The Goal, Task and Bond domains each have scores ranging from 5 to 20. Higher scores indicate a better therapeutic alliance. Completing the WAI-SR takes about 5 minutes.

**Validity, reliability and responsiveness:** The WAI-SR has high internal consistency; Cronbach's  $\alpha$  of the subdomains range from 0.81 to 0.90, and Cronbach's  $\alpha$  of the total score is 0.91 (Hatcher & Gillaspy, 2006; Munder, Wilmers, Leonhart, Linster, & Barth, 2009). The WAI-SR has high reliability, with test-retest reliability of 0.93 (95% CI 0.83 to 0.97) (Hanson, Curry, & Bandalos, 2002). With regard to construct validity, the WAI-SR correlates well with other therapeutic alliance measures;  $r = 0.80$  with the California Psychotherapy Alliance Scale and  $r = 0.74$  with the Helping Alliance Questionnaire (Hatcher & Gillaspy, 2006). Furthermore, higher scores on the WAI-SR are associated with better treatment outcomes, confirming the WAI-SR's construct validity in accordance with Bordin's theory (Falkenström, Granström, & Holmqvist, 2013; Ferreira et al., 2013). The distinction between the Goal and Task domains has consistently failed in confirmative factor analyses. This suggests that these two domains are measuring similar constructs; an interpretation that is supported by the high correlations between the Bond and the Goal and Task factors. For this reason, many researchers recommend using the overall mean of the WAI-SR rather than its subscales (Falkenström, Hatcher, & Holmqvist, 2015).

## COMMENTARY

The WAI-SR is a reliable, valid and widely used tool for measuring therapeutic alliance (Hall, Ferreira, Maher, Latimer, & Ferreira, 2010). It is both easy and quick to use. Although the WAI-SR is the most frequently used tool to assess therapeutic alliance, the questionnaire was originally developed and validated for psychotherapy. It was not specifically designed for

use in physiotherapy and rehabilitation practices (Hall et al., 2010); therefore, it might fail to account for aspects of the physiotherapy or rehabilitation therapeutic alliance. For instance, the WAI-SR does not capture the implications of physical touch and contact during treatment. Yet touch is often a core component of the treatment interaction between therapist and patient in physiotherapy and rehabilitation practice (Kayes & McPherson, 2012).

The mean WAI-SR scores are high in most studies (Ferreira et al., 2013; Hatcher & Gillasp, 2006; Munder et al., 2009). This suggests possible ceiling effects, although these have not been explicitly measured in clinimetric studies. Ceiling effects may affect the responsiveness of the WAI-SR. Domain scores provide insights into which aspects of the therapeutic alliance could be improved. In these cases, ceiling effects are less relevant. Clinically, the WAI-SR can be used if therapists have doubts about the therapeutic alliance in their treatment relationship. Patient scores can be helpful for discussing the therapeutic relationship in order to improve it.

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